

probability of nesting success and the number of young fledged by reducing nestling mortality.

Further studies are needed to define the role of eyrie aspect in nest site selection by Prairie Falcons. Data on eyrie and ambient temperatures from the courtship to fledging phases of nesting phenology should be collected from north, south, west, and east facing eyries across a spectrum of elevational and latitudinal locations. Such information could be coupled with existing data on nest site selection and productivity to identify general trends (and local patterns) in nest site selection of Prairie Falcons throughout their breeding range.

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Successful Breeding of a Pair of Sharp-shinned Hawks in Immature Plumage

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Adult plumage in *Accipiter* is usually acquired during an individual's second summer (1 year after hatching). Since this molt is not completed until the following fall, nesting accipiters can be easily identified as immature (yearling) or adult (2 or more years) on the basis of plumage. Although Bent (1937) stated that each of the three North American *Accipiter* species may breed as yearlings, published accounts of such breeding, particularly of yearling males, are uncommon. In the Northern Goshawk (*A. gentilis atricapillus*) and the Cooper's Hawk (*A. cooperii*), yearling females are known to occasionally pair with adult males and breed (Meng 1951; McGowan 1975; Reynolds and Wight 1978). I could find no published account of such pairing in the Sharp-shinned Hawk (*A. striatus*). However, K. Tuttle (pers. comm.) observed this at 1 of 26 nests found in Utah and Idaho during the 19-y period 1963-1981, and C.M. White (pers. comm.) saw this at another Utah nest in 1963. Breeding by yearling males is apparently a rare event. Two cases each of breeding by yearling male Cooper's Hawk (Kline 1975; Rosenfield and Wilde 1982) and European Goshawk (*A.g. gentilis*) (Glutz

von Blotzheim 1971) have been reported. R. Rosenfield (pers. comm.) has recently observed this at 2 additional Cooper's Hawk nests. To my knowledge, breeding by yearling male Sharp-shinned Hawks has not been documented. K. Tuttle (pers. comm.) observed this in 1973 at a Utah nest site at which an adult male had been shot and killed the previous year. This note documents the successful breeding of a pair of Sharp-shinned Hawks, both in immature plumage.

On 23 May 1983, while searching for nests as part of a breeding ecology study of accipiters in central Utah, I encountered an immature female Sharp-shinned Hawk in what later proved to be the nest stand. The male was first observed on 3 June and appeared virtually identical to the female in plumage and eye color. It was easily separable by its smaller size and higher pitched call.

The nest stand was at an elevation of @ 2000 m on a gentle, north-facing slope in the Uinta National Forest, 8 km northeast of Provo, Utah County. A partially constructed nest was found during the initial observation of the female. The nest was located 4 m above ground near

the trunk of a small white fir (*Abies concolor*) within a stand dominated by bigtooth maple (*Acer grandidentatum*) and Gambel oak (*Quercus gambelii*). No old nests were found in the stand. On 7 June the nest contained 3 eggs. All eggs hatched, but 1 chick disappeared the first wk after hatching. The 2 remaining young fledged by 15 August and were last seen in the nest stand on 23 August.

During incubation the female could be approached to within 3 m and could have been hand-netted on numerous occasions. With the exception of this extreme tolerance of the female to close approach, the behavior of the pair was similar to neighboring pairs. The immature female noted by White in 1963 could be touched while on the nest incubating.

Newton et al. (1981) reported that in a relatively stable population of the European Sparrowhawk (*A. nisus*), yearlings formed 17% of the breeding males and 16% of the breeding females. In *A. striatus* and *A. cooperii*, yearlings (especially males) appear to comprise a much smaller proportion of the breeding population than in *A. nisus*, though the reasons for this are not clear. Meng (1951), Hennessy (1978) and Reynolds and Wight (1978) reported that yearlings formed 6% (N=36), 20% (N = 15) and 6% (N = 34), respectively, of breeding females of Cooper's Hawk populations in New York, Utah and Oregon. Though males were not observed at every nest, all seen by these authors were adult. On the basis of examination of testes of 10 immature male Goshawks, Høglund (1964) concluded that immature males are normally incapable of breeding. This may also be true of yearling males in *A. cooperii* and *A. striatus*, but to my knowledge, has not been studied. Reynolds (1972) discussed the general lack of nesting by yearling male Goshawks, Coopers Hawks and Sharp-shinned Hawks and hypothesized that since males are the principal food providers during the nesting season, foraging experience may be a prerequisite for successful nesting. Reynolds and Wight (1978) suggested that an immature male, lacking experience, may be subject to greater risk of predation or accident while foraging, and therefore, deferring the age of first breeding may increase its future fitness. A concomitant of deferred breeding is delayed sexual maturity. However, a similar argument should apply to the ecologically similar *A. nisus*, yet considerable numbers of European Sparrowhawks, and at least as many males as females, breed successfully their first year (Newton et al. 1981). Furthermore, the relatively larger proportion of yearling breeders is found in both stable and recovering populations, though it may be accentuated in the latter (Newton, pers. comm.). The breeding biology of the closely related Sharp-shinned Hawk has not been intensely studied, and breeding by yearlings, including males, may not be as rare as might be concluded from existing observations.

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Aegyptius Monachus Carrying Food In Its Claws

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On 24 September 1983, while taking a census of the Black Vulture (*Aegyptius monachus*) on the island of Mallorca (Balearic Islands) for ICONA (Ministerio de Agricultura), we observed an adult of this species flying with a relatively large, whitish object in its claws. The bird approached our observatory (Alfabia, 1,067 m above sea level) following the area's mountain crests at a height of approximately 30 - 50 m above the terrain. We could not determine where it came from — possibly from far away. After observing its flight — straight — for about 5 min, we saw it land on a rocky promontory 500 m from our position. It began to peck at the object in its claws. With the aid of binoculars (8 & 9x) we confirmed the fact that the bird was eating. With almost complete certainty the vulture had transported a part of a sheep (*Ovis aries*) which constitutes its basic diet on the island (70% according to Mayol (*Soc. Hist. Nat. Bal.*, 22:150-178, 1976.))